

Title (en)  
HIGH-RESOLUTION COMPUTED TOMOGRAPHY

Title (de)  
HOCHAUFLÖSENDE COMPUTERTOMOGRAFIE

Title (fr)  
TOMOGRAPHIE HAUTE RÉOLUTION ASSISTÉE PAR ORDINATEUR

Publication  
**EP 3035038 B1 20170719 (EN)**

Application  
**EP 16150940 A 20140402**

Priority  
• US 201361811151 P 20130412  
• EP 14721697 A 20140402

Abstract (en)  
[origin: WO2014168796A1] An x-ray imaging system (10), such as a X-ray computerised tomographic system, may acquire a series of radiographs at different detector positions along a first translation axis or a second translation axis parallel to orientation directions of detector pixels of a radiation detector (14). In a first embodiment, the different detector positions may be separated by a distance less than a linear size of the radiation detector (14) along the first translation axis or the second translation axis, respectively. The radiographs may be assembled into a radiograph larger than each radiograph in the series of radiographs, resulting in image stitching. In a second embodiment, the different detector positions may be separated by a distance less than a pixel size of the radiation detector (14), also referred as sub-pixel shifting of the detector. The radiographs may be assembled to form a radiograph with a higher resolution than the acquired radiographs, resulting in superresolution.

IPC 8 full level  
**G01N 23/04** (2006.01); **G06T 3/40** (2006.01)

CPC (source: EP US)  
**G01N 23/046** (2013.01 - EP US); **G06T 3/4069** (2013.01 - EP US); **G01N 2223/419** (2013.01 - EP US); **G01N 2223/42** (2013.01 - EP US); **G01N 2223/427** (2013.01 - EP US)

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)  
**WO 2014168796 A1 20141016**; CA 2904111 A1 20141016; CA 2904111 C 20170516; CN 105264361 A 20160120; CN 105264361 B 20181109; EP 2984473 A1 20160217; EP 2984473 B1 20170719; EP 3035038 A1 20160622; EP 3035038 B1 20170719; JP 2016517961 A 20160620; JP 6105806 B2 20170329; KR 101632046 B1 20160620; KR 20150134364 A 20151201; US 2016047759 A1 20160218; US 9459217 B2 20161004

DOCDB simple family (application)  
**US 2014032670 W 20140402**; CA 2904111 A 20140402; CN 201480021032 A 20140402; EP 14721697 A 20140402; EP 16150940 A 20140402; JP 2016507564 A 20140402; KR 20157028675 A 20140402; US 201414781541 A 20140402